

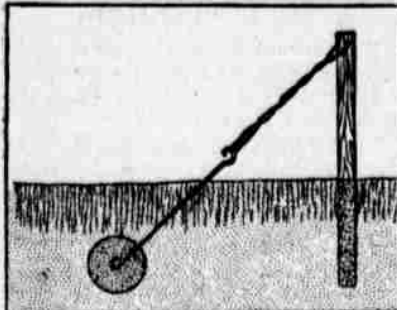
ROAD AND FARM IMPROVEMENT

ANCHORING FENCE POSTS.

How Cement Can Be Effectively Used to Make Them Solid.

My method of anchoring fence posts, writes a correspondent of Farm Life, is as follows: I use three-fourths inch gas pipe for drill stem with detachable bit; also auger for cleaning out hole. Drill hole where you want anchor, not less than four feet in common clay ground.

Discharge one-fourth of a stick of 40 per cent. dynamite in the bottom of



Fence Post Anchor.

hole, after first throwing in two or three double handfuls of dirt. The dynamite will make a nice round basin in the bottom of the hole. You are now ready for the anchor rod and Portland cement made soft enough to run in the hole. Let it stand for ten days before using.

LIGHT OATS VS. HEAVY OATS.

They Practically Have the Same Feeding Value Pound for Pound.

The weight of oats per bushel varies from 30 pounds to 50 and even 55 pounds in some of the western irrigated states. The office of experiment stations notes an experiment on three pairs of Percheron horses which were fed light and heavy oats.

The practical results of this experiment seem to indicate that pound for pound, the light oats have nearly the same feeding value as the heavy oats. Although the heavy oats contain a higher percentage of protein, and carbohydrates and a less percentage of fiber than the light oats, it seems probable that the relative proportions of these constituents are such that they are more easily and thoroughly digested.

It should be remembered that although the two grades are practically equal, pound for pound, they are not equal, quart for quart, and that in feeding by measure, as is usual, allowance should be made for heavy oats and a less portion given.

Since oats are bought and sold by weight instead of measure, there seems to be no gain made in buying the heavy oats at an advanced price over the light oats.

COVERED SALT BOX.

This One Keeps Salt Dry and Can Be Opened by Stock.



Animals will help themselves to salt if it is kept in a box like this. They soon find out how to lift the cover. Hinge the lid in such a way that it will drop of its own accord when the animal goes away. The opening in front should be about six inches wide and about four inches deep and the lid should project over the front edge of the box about an inch.

Mutton and Wool.

According to a report of the department of agriculture, mutton constitutes only seven per cent. of the meat diet of the American people, while beef and veal constitute 47 per cent. and pork 46 per cent. However, there has been a wonderful increase in the consumption of mutton in the past 25 years. The demand for mutton is generally very good in the markets and it is undoubtedly true that there is a great deal of room for expansion in producing mutton for the market. The supply of wool nowadays is entirely inadequate for the demand and the price is very high in comparison.

Lice on Cattle.

Lice on cattle indicate lack of attention and poor feed. Grease of any kind will destroy on cattle, but grease should not be used if it can be avoided. First wash the animal with kerosene emulsion and follow with clear water. When the skin is dry dust every portion of the body with a mixture of a peck of carbonate of lime and a bushel of clean, dry dirt. If a single animal is infested with lice, the others will soon be in the same condition unless remedies are used as preventives.—Dr. Smead.

Treating Hogs for Worms.

James Munson, a northern Iowa hog raiser, gives this as his treatment for worms in hogs: When I think my pigs have worms I take them off feed and even water at night. The next morning I mix up a good dose of feed and turpentine. In the evening you will see results. If that does not do give another dose. When they get in that condition they will cough and their coats get rough and they do not eat well.

PARASITES VS. WHITE GRUB.

What Illinois Expert Has Discovered Concerning Work of Farmer.

The Illinois state entomologist, Dr. S. A. Forbes, of Urbana, has done much in studying the parasites that destroy the white grub, and the following items from his office indicate something of the beginning that has been made in solving one of the vital and urgent problems of the farmer.

The common grub wasp (Tiphia) is much the most important insect enemy of the white grub. It is a slender, jet-black insect, usually two-thirds of an inch long, with wings either clear or tinged with dusky yellow.

It enters the ground in search of the grubs, follows them up in their burrows and lays on the back of each grub a single egg, which hatches into a footless maggot-like larva which adheres to the surface of the grub, punctures its skin, and sucks its blood for a time, but finally eats it up.

These maggots have been known to destroy, under favorable circumstances, the entire grub population of a badly infested field. The method of this insect and the main facts of its life history have been worked out in Dr. Forbes' insectary the past two years by J. J. Davis and J. A. West, from cocoons and infested grubs sent in by E. O. G. Kelly from fields at Ellicott, Ill.

The wasp attacks the grub and a violent struggle ensues until the former stings her prey, temporarily paralyzing it, and then smears a viscid fluid upon the back of the grub not far behind the head, and deposits her egg on this sticky surface.

The operation occupies several minutes and has been fully observed a number of times. Several white grubs found in the field had these parasites on the under side of the body between the thoracic legs.

The egg hatches in seven to ten days and it takes the maggot about two weeks to get its full growth. It doubles its size the last two days. The full-grown maggot is two-thirds to four-fifths of an inch in length.

In several cases an abundance of its cocoons were found in the ground, indicating an enormous destruction of white grubs. No doubt this wasp is an important agent in checking destructive uprisings of grubs.

A little tachinid fly is another parasite of the grub. The adult is a large blackish-gray fly with a general resemblance to the common large blow fly. Another parasite is the young of a large, slender-bodied, dark red ichneumon fly. Still another is a bee-like covered with erect yellow fur.

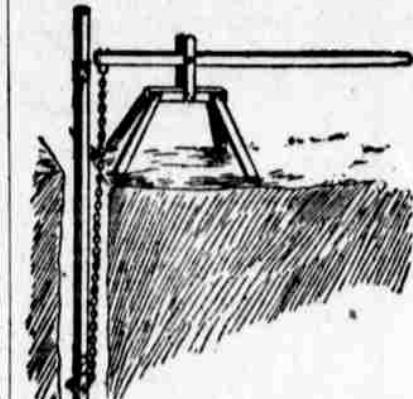
Mr. West discovered May-beetles dropping to earth trying to rid themselves of adult flies that were clinging to them and apparently thrusting eggs into their backs. The effect was tested in breeding-cages. The beetles so treated lived for some days and then began to die, dipterous maggots being found in the body. These flies were also seen among the May-beetles on the trees at night.

Nothing has been done to test the possibility of collecting and distributing parasites, other than those of contagious diseases, and the latter subject has not been worked out to final conclusions. So it is seen that the parasites alone offer a large field for investigation with a view to the destruction of white grubs.

FOR LIFTING PUMP-PIPE.

Quickly-Constructed Jack Which Will Make the Task an Easy One.

The frame of the home-made jack shown in the illustration is made of 4x4's. The lever is a piece of 2x6, 10



Apparatus for Drawing Pipe.

feet long. To pull the pipe, make a slip loop in the chain and let it run down the pipe below the joint. The other end is fastened to the lever.

FARM ITEMS.

Have plenty of fresh air from cellar to garret at all times. Do not keep any part of the house shut up so it becomes foul; let the air and sunshine in.

Imagine if you can, your good house-keeping grandmother buying canned hash or mince-meat.

We have no objection to the man "with an ax to grind," provided he shows the ax and pays for the service. All skim milk hauled from creameries to the farm should be pasteurized.

Mighty offensive! A fight over a line fence handed down as a legacy from father to son.

Every hundred pounds additional weight in the case of a heavy draft horse is worth from 25 to 50 cents more per hundredweight when making a sale. A farmer is in position to feed as cheaply as any professional feeder. To sell well on the market horses must be fat, sleek and well groomed. The buyers demand fat.



THE WOMAN'S CORNER

POCKET FOR WALL

DEVICE THAT WILL SAVE TIME AND TROUBLE.

Useful for Keeping Always at Hand Answered and Unanswered Letters—Can Be Made Decorative and Ornamental.

We should save ourselves frequently a vast amount of time and trouble if we could have our answered and unanswered letters always ready to our hands, and some such device as the one shown in the accompanying sketch is well worth carrying out. A wall pocket of this kind can be made very decorative, too, as well as ornamental, and can easily be put together without any previous knowledge of carpentering.

Four narrow strips of wood, which may be either enameled white, or stained in some artistic shade to harmonize with the wall paper, are firmly nailed together at the corners, after the fashion of an Oxford frame. A piece of silk or brocade is then stretched across the back, and either

PRETTY WRAP OF CROCHET.

Directions for Making the Garment and its Border.

This is a very handsome wrap, and is easily made. It may be worked in Shetland or Ivory wool. Three ounces are required of the latter, rather less of the former. A medium size bone hook should be used.

Work a chain 1 1/4 yards in length, turn and work a double treble into the



6th from hook, pass 2, * a double treble in the next, pass 2, 5 double trebles in the next, pass 2, and repeat from * for length of chain, taking care to end with a double treble; turn, 5 chain, a double treble in the middle stitch of the nearest group of double trebles, both top threads to be

FLOWERS SEEN ON GOWNS.

Simple Daisy Especially Has Become Very Popular.

The fad for flowers has brought back at least one simple thing of the past—the little field daisy. Lovely gowns of white tulle for debutantes are being made with no trimming whatever except the dainty pink-tipped daisy and the ribbon which frames it. Small bunches of the little field flowers with its buds and green leaves are scattered at intervals above the hem of the skirt, while the lowest bodice is decorated with a huge bunch of them.

There are no end of ways to use these inexpensive artificial blossoms, and the chances they offer for touching up a white gown are many. One girl has outlined the décolletage of a simple white net party dress with the heads only set on like buttons among the tiny fluted ruffles of the net. Flowers are also being much used to outline the arm's eyes of sleeveless gowns, and a girl with one or two white dresses would find a few sets of flowers of different varieties an easy way to vary her party dresses.

Tunic Effects.

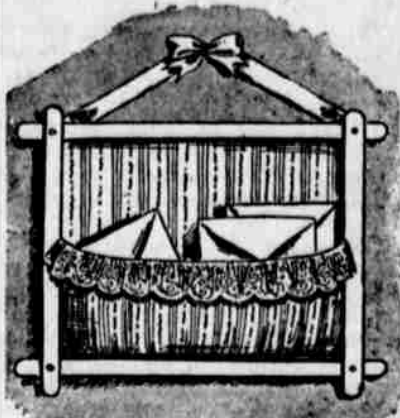
Some of the new skirts for dressy gowns have tunic effects, but rather carried out by an upper skirt of trimming than by an upper skirt of material.

It is more than probable that what will succeed the present type of toilet will in some form or other be the tunic.

Such, at any rate, is the opinion of many dressmakers, and were the tunic boldly launched for a dressy sort of a winter toilette nobody in Paris would be taken much by surprise, so it is said.

Still this is more likely to be brought out for very late rather than the early winter, and for evening rather than street wear.

penetrate through to the front, if they should be used in preference to glue. A fairly deep pocket, bordered with lace, is then manufactured out of the glued or tacked on to the wood, care being taken that the nails do not



same silk or brocade, and sewn to the piece of material at the back, while a ribbon loop tied in a pretty bow in the center serves to hang the pocket against the wall. If a still smarter effect is desired, other small bows of ribbon might be tied across the corners.

taken up throughout the work, * 5 double trebles on the double treble between the groups, a double treble on the middle stitch of the next group, and repeat from * ending with a double treble on the last group; turn with 5 chain, and continue as before, working to and fro until there are only five groups of stitches in the row.

For the border.—Work a double treble in the nearest stitch, * 10 chain into the same stitch, 10 into the next stitch, and repeat from * all round the shawl.

Round Shouldered Children.

There are very few children who are round shouldered before the age of six or seven. If a child younger than that is round shouldered first of all see that his general health is good. Give him plenty of nourishing food and an abundance of exercise in the open air. Put the child to bed at an early hour and insist upon his sleeping on a small hair pillow about an inch high instead of a soft feather one. Night and morning massage the back with long, steady strokes. Constantly remind the child to "stand straight like a soldier." Teach him the correct soldiers' position, with heels together, head up, shoulders back, and hands to the side. Also teach him pretty kindergarten marches, with the various steps which accompany them.

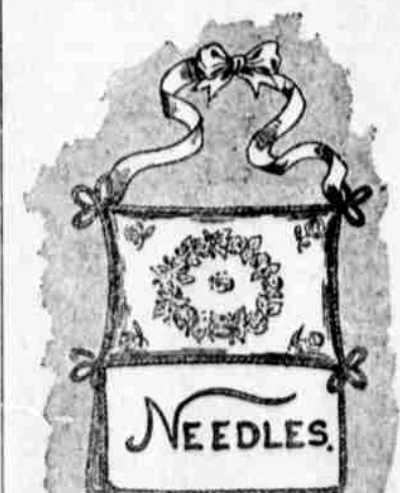
Do not allow him to sit in a high chair where his feet will dangle. Give him a comfortable low chair and see that his feet can touch the floor comfortably when he sits down. Round shoulders can be quickly and easily cured in a young child, as the bones are soft and pliable and will quickly respond to the straightening process.

BOOK FOR PINS AND NEEDLES.

Combination Very Convenient to Have at Hand.

It is often very convenient to have a pin-cushion and needle-book at hand hanging from the corner of the looking-glass on one's dressing-table, and in the little sketch which is given herewith an ingenious arrangement is shown whereby these two useful articles may be combined in one.

The pin-cushion is of an ordinary oblong shape, covered with pale green



linen upon which pink roses are daintily embroidered in a wreath design, while the edges are outlined with darker green silk cord.

The needle-case has a pale green linen cover with the word "Needles" embroidered upon it in rose-pink, and this also is edged with dark green cord. A pale green ribbon is used to hang the combined cushion and case, either on the looking-glass, as already suggested, or on a nail fastened in the wall.

MINES AND MINING

Only six times, in the last twenty-five years (in 1883, 1884, 1891, 1893, 1896 and 1904) has the mining industry of America recorded a falling off in the value of its output.

Ore shipments from Park City for the week ending January 11, in pounds, were as follows: Silver King, \$17,760; Daly Judge, 475,000; Daly West, 500,000; total, 1,792,760 pounds.

The total production of copper in the United States for 1907 was not far from \$90,000,000 pounds, valued at \$181,916,000, which is equivalent to nearly 60 per cent of the world's supply.

In December Utah mines are credited with a production of \$5,000,000 pounds of copper, as against 10,000,000 for November. The December lead output is given as 10,750,000 pounds.

One hundred and twenty miners left Salt Lake on January 7, to work in the mines of Goldfield. Most of the men were miners who had lost their position as a result of the close down of the Park City mines.

If the United States continues to multiply its production of gold at the rate it has in the last seven years, that is, from \$6,000,000 to \$8,000,000 per annum, it will not be long before the Transvaal will have to forfeit first place.

The year 1907 will long be remembered by the mining industry for its six months of unusual prosperity, three months of relaxation and three months of surprising depression, writes C. C. Schatterback of the Mining World.

The whole camp of Yerington, Nevada, is rather quiet, but practically all the large companies now closed down, with the exception of a few men each, are ready and equipped for the old-time activity as soon as the word to start is given.

The Sody Coal company, operating mines and coke ovens at Rathburn, sixteen miles from Chattanooga, Tenn., has closed down the plant and about 100 men are idle. The men resisted a proposed reduction in wages amounting to 10 per cent.

An injunction restraining the Montana Mining company, Limited, from mining the "compromise strip" during the pendency of the suit concerning its possession, in which the St. Louis Mining & Milling company is the plaintiff, was granted by Judge William H. Hunt of the federal court at Helena last week.

Undoubtedly the most profitable branch of the metal mining industry in the United States is copper, judging by the fact that twenty-seven of these properties have paid dividends amounting to the large total of \$50,405,428 for 1907. The average return for the year was about 28 per cent on the outstanding capitalization of \$178,765,275.

Bullfrog papers announce that the Bullfrog Leasing & Milling company expects to have its twenty-five-ton cyaniding plant in commission by the first of the coming month. This company owns a lease on the Bullfrog Pioneer group, and the officials expect by the close of the year to have a plant capable of treating 150 tons of ore per day.

Representatives of the smelter trust have announced that they are now prepared to take all Goldfield ores offered up to \$100 in value, and pay cash therefor. On ores running higher they will pay \$100 cash and the remainder in forty-five days. Encouraged by this new ruling of the smelter trust, several mines are preparing to start up.

Heretofore the borax supply for the whole country has come out of Death Valley in Nevada, and it was understood that little borax ground was to be found elsewhere. Now Harney county, Oregon, has entered the field, and it is said has a large area of very rich borax deposits, and several different companies will begin work in the spring.

The Bullfrog district of Nevada is full of two things, one being low-grade gold ores, the other being rumors of concentrating plants. The camp distinctly is a milling camp, and it will be only by the installation of mills that stockholders in Bullfrog mines will be able to secure a substantial return on their investments, says the Salt Lake Tribune.

A gratifying feature of the last year has been the payment in dividends of \$175,512,717 by 137 concerns affiliated with the mining and metallurgical industries of the United States. Since their incorporation these 137 concerns have declared in dividends the fabulous sum of \$1,497,132,552, which is equivalent to about 88 per cent on the outstanding capitalization of \$1,702,046,482.

A new oil company was organized in Utah last week under the name of the Utah Oil and Pipe Line company. Their wells will be at Junab station, on the line of the Salt Lake Route, where all experts who have visited the country are sure of favorable results.

There are fully 1,700 people in Rawhide, Nevada, now, plenty of all sorts of stores have been added, and the camp is prosperous. The sale of lots in the town began last August, and some lots that sold then for \$10 each are now commanding prices as high as \$1,500.

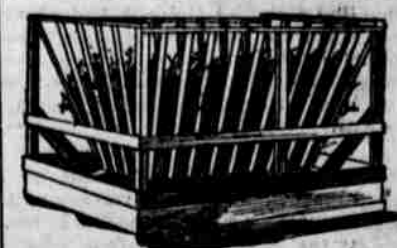
Goldfield Consolidated Mines company has an issued capitalization of approximately 3,550,000 shares, of the par value of \$10 each. Figuring the ore in sight at \$25,000,000 and deducting 43 per cent for freight, treatment and smelter charges, would leave a net profit of \$12,500,000.



CONVENIENT FEED RACK.

One Which Will Prevent Waste of the Coarse Feed.

A substantial feed rack is a good investment on any farm where a considerable amount of stock is kept. By using a rack of this kind much coarse feed can be utilized that would otherwise be wasted and at the same time this coarse feed is made to go as far as possible. We illustrate herewith a rack we have found serviceable, says The Farmer. This rack will cost in the neighborhood of \$18. The stock always spends a considerable share of the winter days in the yards, even the dairy cows, and racks of this kind give an opportunity for the stock to eat their roughage while they are getting



Construction of Feed Rack.

their exercise. Where the straw and waste hay and fodder was formerly strewn around the yard and tramped in the mud there is now no such waste. The yards can be kept clean and all the roughage used. The racks are also helpful to a certain extent as protection from the weather.

The illustration gives a very fair idea of the construction of the racks. They are 16 feet long, eight feet wide and eight feet high. They are mounted on three 2x8 skids and can be drawn to different parts of the yard. The framework is built around six upright 4x4s braced with 2x4s around the top. The slats in the rack are made of fencing. The rack is floored with inch stuff and sided up with 1x12 boards over which is a 2x8 board to add strength where the cattle lean over the rack. A 2x6 32 inches above the 2x8 and around the rack prevents crowding and adds strength to the rack. A rack of this kind calls for the following bill of material:

Twenty-two pieces of fencing 10 feet; 3 4x4s, 16 feet high; 7 2x4s, 16 feet high; 9 boards 1x12x16; 3 2x8s, 16 feet long; 5 2x4s, 16 feet long; 128 feet flooring; 6 2x8s, 16 feet.

KIND OF COWS TO KEEP.

Raise Them Yourself and Be Sure of Their Milk-Giving Capacity.

It is not sufficient to have a certain number of cows. They should be adapted to the work—dairy cows, not beef animals, that can only produce sufficient milk to raise a veal calf. Such cows are not the most profitable ones to keep. Aim to raise your own cows, then through selection and breeding the producing capacity of your herd can be increased.

If you do not feel equal to the expense, cooperate with your neighbor and purchase a good dairy sire. The influence of a good sire towards improving the quality of stock, especially where grades are kept, is very marked.

Lay your plans for a silo at just as early a date as possible. The silo has come to be recognized as one of the most important buildings on the dairy farm.

Care should be taken not to feed cows food capable of imparting objectionable odors or flavors to cream. Turnips and other strong flavored foods can only be fed immediately after milking, but it is better not to feed such foods to dairy cows. It is not necessary and it is too risky.

HORTICULTURAL NOTES.

We caution readers to go slow in these "home mixed" oils for spraying. It is not a mere matter of putting caustic and oil together.

Score still another for the apple. Weston, the old pedestrian, who tramped to Chicago, eats his baked apple every morning.

Suppose some of you gray-haired men 40 years ago had planted some of your waste land in pine or hemlock? It would certainly be paying your board now.

An English magistrate recently imposed sentence on a school boy who had damaged a tree belonging to the Ealing corporation. He ordered the boy provide another tree, and plant it himself. This seems a thoroughly practical way to make the punishment fit the crime.

Mulching is an important point in the production of choice berries. Spread buckwheat straw on old meadow and plow under in fall for potatoes.

Butter Making.

In churning at a low temperature the churn should be stopped when the butter is in granules about the size of rice or grains of wheat. Draw off the buttermilk and wash the butter in good, pure water. Salt the butter at the rate of three-quarters ounce of salt to the pound, or slightly more, as the market may demand. Then work and pack into packages ready for delivery.